

# Eads & Heald Investment Counsel

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## Equity Investing

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### Chapter 6: The Three Components of Equity Total Return

When you purchase a stock your total return will come from three and only three components. The first component is the earnings growth rate. Ultimately, a stock price will go where the earnings go. The second component of your total return is the change (percent per year) in the PE of the stock over the period of interest. The PE is the valuation placed on corporate earnings. The third, and final, component of your total return is the dividend yield (this is the dividends in dollars per share divided by the stock price per share and put into percentage terms).

The accompanying Chart 1 shows the three components of total return equation in conceptual form and in more precise mathematical form. The term "g" is the growth rate (percent per year) for earnings per share, the change in the PE ratio is shown as " $\Delta PE$ " as a percent per year change and the dividend yield (shown as a percent) is the third term.

This three part equation for projecting your total return over any time horizon is quite simple yet profound. It forces you to individually focus on each of the three components of your return in lieu of just vaguely expecting some return to magically materialize. The PE is a specialty term that needs tender loving care in its determination. I believe that the perception of inflation, the expected earnings growth rate and the consistency of the earnings growth are key to a proper determination of the PE change. PE is not an arbitrary fallout of where earnings and/or price happen to go. PE is very deliberately determined in the huge voting booth called the stock market. That is, PE is the valuation placed on the earnings. In this regard, we usually think of earnings per share as opposed to total corporate earnings.

Chart 2 depicts the Coca-Cola stock over the 35 years 1968 into 2003 inclusive. This period is shown because it dramatically shows an interesting earnings, price and PE history. The earnings per share scale (left vertical axis) and the stock price scale (right vertical axis) are set up so that any time the stock price touches the earnings line, the PE at that time is 15. A logarithmic vertical scale is used so that a straight line trend is a constant rate of growth.

You can easily visualize when the PE moves above 15 (price above earnings) and when it moves below 15 (price below earnings).

The PE was high and in a general expansion over the 1968 through 1972 period, a general decline over 1973 through 1981 and an expansion again over the period 1982 into 1998. The small table in the upper left corner of Chart 2 gives the compound average annual price change for each of four time periods along with the two components of price change: earnings per share (EPS) change and PE change. The two terms, earnings average annual percent change and PE average annual percent change are multiplicative to get price change. That is, over 1973 through 1981 the price change is:

$$(1 + (9.5/100)) \times (1 + (-16.4/100)) = .915$$

which equates to an average annual price decline of -8.5%. The equation could have been written to arrive directly at this result by using a couple more terms.

The point is to see how the price change was broken into the two components of earnings change and PE change. Of course, the overall assumption is that a stock price tends to go where earnings go except for valuation (PE) changes. These two components work together to make the price change. Of course, the total return is percent price change plus percent dividend yield.

All of this works for any stock over any time period. The focus is then on forecasting earnings growth, PE change and dividend yield. The mystery term to many people is the PE change. This series of chapters will shine definitive light on how to approach the task of attempting to forecast PE changes in a future trend sense.

Conceptually,

$$R = \text{EPS Growth Rate (\%)} + \text{Divd. Yield (\%)} \pm \Delta \text{PE (\%)}$$

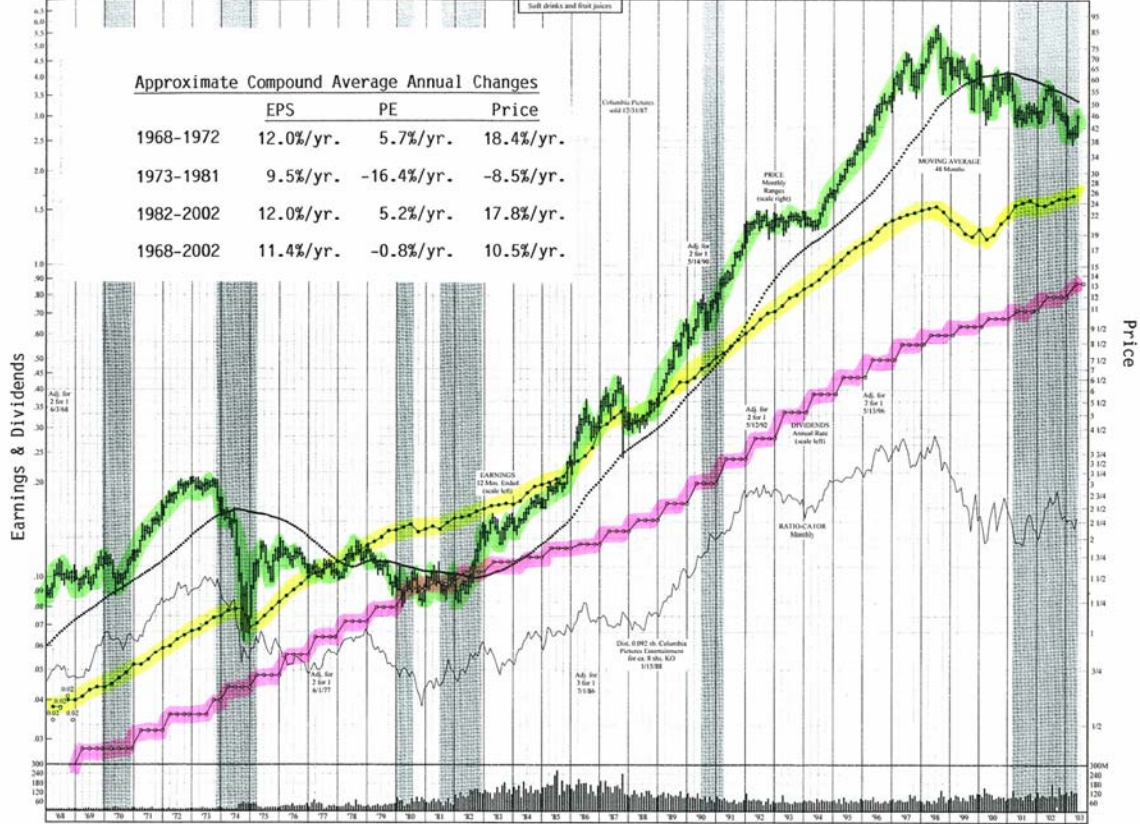
Mathematically,

$$R = (((1 + g/100) \times (1 + \Delta \text{PE}/100)) - 1) \times 100 + \text{Divd. Yield}$$

Over approximately 30 years, the PE term falls out.

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Eads & Heald LLC



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Chart Courtesy of Securities Research Company

Price  Earnings (12 months ended)  Dividends (annual rate)

Eads & Heald Inc.